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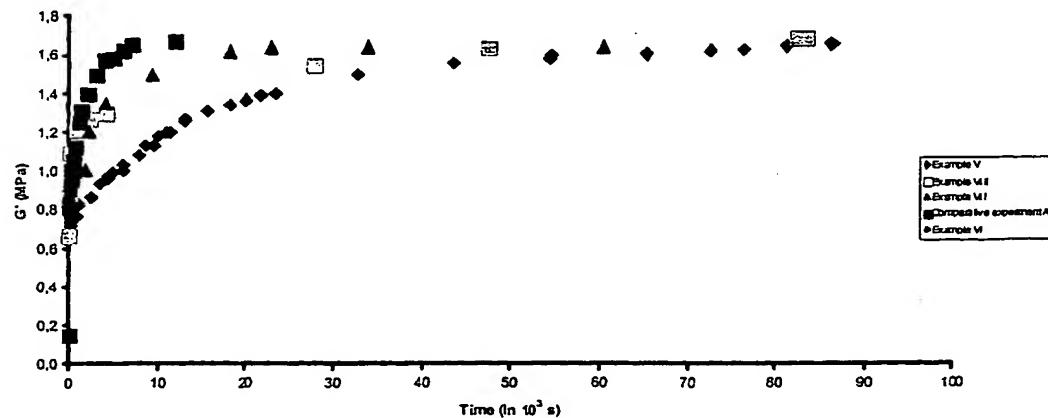
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(54) Title: PROCESS FOR THE PREPARATION OF A SHAPED PART OF AN ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE



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(57) Abstract: The invention relates to a process for the manufacture of a shaped part of ultra high molecular weight polyethylene (UHMWPE) comprising melt processing, wherein a) the UHMWPE has a weight average molecular weight (Mw) of at least  $1 * 10^6$  g/mol, b) during the shaping the storage plateau modulus of the UHMWPE ( $G^*$ ) is kept at a value of at most 1.5 MPa, c) whereafter, before the cooling, the  $G^*$  is raised to its final value. The invention further relates to a shaped part obtainable with the process and the use of the shaped part in a medical application.